



The pedestal of Leshan Giant Buddha in Sichuan Province is exposed because of lower water levels. It is normally under water. — IC



A firefighting helicopter is in action to put out a wildfire in Chongqing. — IC

India and Pakistan broke 122-year-old records with temperatures exceeding 45 degrees Celsius. The heatwave affected more than 1.5 billion people.

In the United States, the receding waters of Lake Mead, the nation's largest reservoir, have revealed the bones of past victims of drowning or even foul play.

Europe, meanwhile, is experiencing its worst drought in 500 years. A third heatwave hit again in August after a scorching July. Parts of France and Spain reached temperatures as high as 38 degrees. In the United Kingdom, one day in July broke records with 40-degree heat.

The Global Drought Observatory said that 47 percent of the continent is under a "warning" that means soil has dried up, and another 17 percent is under an alert that signals vegetation showing "signs of stress."

The receding waters in Europe, too, are revealing long-hidden artifacts — from ancient Roman sites and ghost villages to World War II shipwrecks.

Among the relics are the "hunger stones" that recorded water levels during long-ago

70%

The water volume in large lakes such as Poyang and Dongting dropped 70 percent in August, which should be the normal "flood season."

severe droughts. One of the stones on the Elbe River at Decín in the Czech Republic bears the warning "Wenn du mich siehst, dann weine," which means: "If you see me, weep."

The drought will indeed affect the year's crop yields. The European Union is forecasting that its maize harvest will drop 16 percent, with equally steep deficits for soybeans and sunflowers.

Wildfires have accompanied heat and drought in China, the US and Europe.

In Chongqing, more than 10 wildfires broke out from August 17 and took a week to extinguish. Thousands of firemen and volunteers from all over the country rushed to the scene to try to save forests.

"This has been a hard month for my city," Lan Yeyao, a Chongqing native, told Shanghai Daily. "First, it was incredibly hot, and then wildfires broke out. The power supply was not stable due to grid overload, and to top it all off, we have a new outbreak

of COVID-19 cases and have had to line up in the heat to be tested."

China's National Climate Center has declared that the summer of 2022 is the hottest in the 61 years since China began compiling complete national meteorological records. Continuous heat hit most areas of the country since June, breaking several records.

Shanghai registered a record seven days when temperatures reached 40 degrees Celsius. But that paled in comparison with the southeastern city Chongqing, where daily highs have been hovering around 40 degrees for nearly the entire month of August, reaching 45 degrees on August 18 and 19.

The scorching weather has also affected Jiangxi, Fujian and Zhejiang provinces.

It's a good-news, bad-news story.

The good news is that the current heatwave in China is ending. Chongqing got some rain yesterday, with the temperature dropping below 35

degrees.

The bad news is that scorching heatwaves might become the new summer norm.

"The heatwave is part of extreme weather caused by global warming," said meteorologist Zhang Renhe, an academician of Chinese Academy of Sciences. "If global warming is not tackled, summers may get even hotter in future decades."

He explained: "It does not mean that every summer will be hotter than the previous one because changes in general atmospheric circulation also play a vital part. But the general trend of warmer summers is not going to change."

Zhang said that the current global surface temperature is 1.1 degrees Celsius higher than the average from 1850 to the 1900s, and that is the largest increase since the last glacial period 125,000 years ago.

Furthermore, heat is just part of the extreme weather caused by global warming, which can also induce floods

and even extreme cold.

Zhang said that the rise in the Earth's surface temperature will disrupt the rainfall balance around the world, causing floods in certain areas and melting of Arctic Sea ice, which may cause abnormally cold winters in mid-latitude regions.

We might need to prepare for colder winters in the coming years, he said.

As Arctic Sea ice melts, there's more water to absorb heat from solar radiation, pushing cold air southward to other continents through changing atmospheric circulation.

Zhang said many experiments are under way around the world to try to slow global warming, such as spraying sulfide into the atmosphere to block solar radiation, but at the moment, the efforts are still theoretical. Ultimately, carbon neutrality might be the only solution.

"On one hand manufacturers need to control carbon emissions, and on the other, we as individuals must pursue a lower-carbon lifestyle," he said. "It's a collective global endeavor that we all need to take part in to protect our Earth."